

Response to Comments
Yellow Medicine One Watershed One Plan 60-Day Review
Monday, August 1, 2016

| # | REVIEWER | COMMENT ON DRAFT PLAN | RESPONSE | FINAL PLAN LOCATION |
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| 1 | MDA | Section 3.1.3, page 29, 3 rd ¶ -- Correct the number of private wells tested statewide to 70,000 instead of 900. | Correction was made. | Section 3.1.3, page 30, 4 th ¶ |
| 2 | MDA | Section 4.1.3, page 34, Priority Concern 3: Protect and Preserve Groundwater Quantity and Quality, 3 rd bullet -- The statement assumes that over 10% of the wells fail to meet the 10 mg/L nitrate standard. Revise language to “maintain fewer than 10%...” | Revision was made. | Section 4.1.3, page 35, Priority Concern 3, 3 rd bullet |
| 3 | MDA | Tables 4-1 and 4-2, pages 36-45 – MDA is not included in these tables as many actions could be funded through the AgBMP Program and/or MAWQCP. | Added MDA to the Responsibility column for second Action Item; and Cost-Share/Funding Source column on Tables 4-1 and Table 4-2 where adding cover crops and implementing targeted nutrient rates are addressed. | Table 4-1, pages 38-43; Table 4-2, pages 44-47 |
| 4 | MDA | Table 4-3, pages 46-47 – MDA is referenced, but not included in the acronyms table. Correct the language of the 3 rd bullet at the top of the table as noted in Comment #2. | MDA was added to the acronyms table. The goal statement was revised with “ <i>maintain fewer than 10%...</i> ” language. | Table 4-3, page 48 |
| 5 | MDA | Section 5.3.2, page 56, “BMP Implementation Goals at a Glance” figure, 1 st bullet -- Define the target nitrogen rate to clarify if the Maximum Return to Nitrogen (MRTN) rate is based on crop price and fertilizer nitrogen price, or the midpoint of those rate ranges. Insert reference to clarify. | Footnote added to the bottom of the box clarifying the nitrogen rate: “ <i>The efficiency for reducing the transport of nitrogen as a result of adopting the University of Minnesota application rates was set to 25% in the SAM model. This value was the average of the range presented in Table 4-9 of the WRAPS report, page 59.</i> ” | Section 5.3.2, page 58, “BMP Implementation Goals at a Glance” figure, 1 st bullet |
| 6 | MDA | Section 5.3.4, page 58, “BMP Implementation Goals at a Glance” figure – edit language as recommended in Comment #2. | Revision was made. | Section 5.3.4, page 60 |
| 7 | MDA | Section 5.8, page 78, Potential Research – Refining existing BMPs and methods to reduce fertilizer inputs is a commonly identified knowledge gap. The Nitrogen Management Initiative (NMI) was developed to help farmers and crop advisors in evaluating practices. NMI information can be found at: http://www.mda.state.mn.us/nmi | A new Section 5.8.1.9 was added to include NMI and the link. | New Section 5.8.1.9, page 82 |
| 8 | MDA | Table 6-5, page 99 – correct Nitrogen Fertilizer Testing Program to “Nitrogen Fertilizer Management Plan” | Revision was made. | Table 6-5, page 102, 3 rd line from bottom |

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| 9 | MDH | Section 3.1.3, page 29, 3 rd ¶ -- this paragraph regarding MDA's NFMP is inserted between 2 paragraphs about public water suppliers. Recommend rearranging the paragraphs to flow better. | Moved 3 rd ¶ to the end of Section 3.1.3. | Section 3.1.3, page 30, last ¶ |
| 10 | MDH | Tables 4-1 to 4-7, pages 36-52 – suggest moving the repetitive acronym boxes at the top of each table to the beginning or end of the set of tables. Not all acronyms in the table are listed. | Additional acronyms were added. Location of the acronym box will remain at the top of each table to have acronyms handy to the reader. | Pages 38, 44, and 48 |
| 11 | MDH | Section 5.3.4, page 58 – Remove Belview as it is outside the 1W1P boundary. | Removed Belview from the list of communities. | Section 5.3.4, page 60, 1 st ¶ |
| 12 | MDH | Section 5.4.4, page 61 – It will be important to consider groundwater quantity and quality in many of the proposed projects, other than capital improvement projects, to avoid adverse impacts to groundwater. | Section 4.1, Page 33, 2 nd ¶ -- added “ <i>quantity and quality</i> ” at the end of the last sentence. Page 63, added new bullet to the list: “ <i>Positive and negative impacts to groundwater quantity and quality</i> ” | Section 4.1, page 34, 2 nd ¶; Section 5.4.4, page 65, 4 th bullet |
| 13 | MDH | Section 5.8.1.7, page 80 – Seeking funding for SSTS compliance surveys and inspections is not listed as a measurable goal in the Section 4 tables. Recommend adding this activity as a measure. | Table 4-2, page 45, added additional sentence under Action column, “ <i>Funding may be sought to complete the inventory.</i> ” Added MPCA, CWF under Cost-Share/Funding Source column. | Table 4-2, page 47, Obj. 3, 2 nd Action Item |
| 14 | MDH | Section 5.9.7, pages 86-87 – Consider adding irrigation management for ag producers, educating elected officials about drinking water protection, and/or providing groundwater resource education to middle and senior high school students to the list of education programs. | All suggestions were added and a new bullet for Elected and Appointed Officials was added to the list. | Section 5.9.7, page 90, 3 rd bullet |
| 15 | MDH | Table C-3, page C-19 – Table headings are cut off. | This can be corrected by adjusting printer settings; a PDF version will be available to the public. A legend will be developed for the table abbreviations by RESPEC. | Appendix C, Table C-3, pages C-19 and C-20 |
| 16 | MPCA | Executive Summary, page 2 – recommend adding the link https://www.pca.state.mn.us/water/watersheds/minnesota-river-yellow-medicine-river after “WRAPS report”. | Link added as recommended. | Executive Summary, page 2, 3 rd ¶ |
| 17 | MPCA | Section 3.2, Page 31, top ¶ -- recommend replacing part of the last sentence to read: “...that meets the 10-year target goals...” instead of “...that meet water quality standards...” | Language replaced as recommended. | Section 3.2, page 30, 1 st ¶ |
| 18 | MPCA | Section 3.2, Page 31, top ¶ -- “The current monitoring plan is discussed in Section 5.7.2.” It should read, “The current monitoring plan is discussed in Section 5.8.2 and Table 5-10.” | Section reference was corrected and “ <i>and Table 5-10</i> ” added. | Page 32, top ¶, first sentence |

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| 19 | MPCA | Table 4-1 and 4-2, Page 36 – MPCA could be listed as a source of funding for administration of Section 319 Funds. | MPCA clarified comment by asking to be added to the acronyms table. | Pages 38, 44, and 48 |
| 20 | MPCA | Table 4-2, page 42 – MPCA is listed as source of funding for SSTS upgrades, but is not listed in the acronyms table. | Added MPCA to the acronyms tables. | Pages 38, 44, and 48 |
| 21 | MPCA | Table 4-3, page 46 – MDA is listed in the table but not included in the acronym table. MDA is missing from Tables 4-1 and 4-2. | See Comment #4. | |
| 22 | MPCA | Table 5-6, page 62 – the Plan symbols identify two levels of effectiveness: High or Low/Medium. MPCA would like some clarification added to the narrative as to how the effectiveness parameters were derived. | Table was developed upon professional judgment and experience of Lee Rosen, PE and Geoff Kramer, EIT of RESPEC. The name of the table will be changed to “ <i>Evaluating Capital Improvement Projects for Multiple Benefits Example</i> ”. Footnote will credit RESPEC professionals. | Table 5-6, page 64 |
| 23 | MPCA | Section 5.7.3.5, page 76 – MPCA suggests the following wording: “The MPCA implements NPDES permits, such as stormwater (construction, industrial, and MS4), concentrated animal feeding operations (CAFOs), and municipal and industrial wastewater discharges. Specific information on NPDES permits and process can be found at https://www.pca.state.mn.us/water/water-permits-and-forms ”. | Replacement language and link inserted as suggested. | Section 5.7.3.5, page 79 |
| 24 | MPCA | Table 5-10, page 81 – MPCA recommends replacing “Stream Flow Monitoring” title from the table with “Watershed Pollutant Load Monitoring Network”. | Added “/WPLMN” to the title. | Table 5-10, page 84, 1 st line under <i>Surface Water</i> |
| 25 | MPCA | Section 5.9.7, pages 86-87 – The Plan could provide a link to MPCA’s website for Volunteer Monitoring Programs: https://www.pca.state.mn.us/water/citizen-water-monitoring | Comment was considered; link was not added. | |
| 26 | MPCA | Table 6-5, page 100 – last entry in the table, recommend changing “State Revolving Fund” to “Section 319”, and “loan” to “grant”. | Changes were made as recommended. | Table 6-5, page 103, last line |
| 27 | BWSR | Section 5.3.3, page 58, The Scenario Application Manager (SAM) Tool measures P and N in lbs/year. The table for “Priority Concern 1 and Priority Concern 2 Along With Implementing Buffers” lists P and N reductions in tons/yr. These units need to be changed for consistency. | Corrections were made. | Section 5.3.3, Table 5-5, page 60 |
| 28 | BWSR | Appendix D, MOU – the original MOU is included and must be replaced with the current MOU. | MOA Amendment No. 1 was added to Appendix D. | Appendix D |
| 29 | BWSR | Tables 4-1 to 4-7, pages 36-52 – Plan needs to better describe the outcomes of annually established activities. Activities requiring annual re-establishment need clarification if results are intended to be measured annually. Example language offered. | Language was adopted and revisions made. | Table 4-1, pages 38-43 Table 4-2, pages 44-47 |

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| 30 | BWSR | Plan must provide language regarding the measurement standard of 1,000 acre-feet of storage. Example language offered. | Added language as footnote (a) to Table 3-1. Former footnote (a) is now (b). | Table 3-1, page 32 |
| 31 | BWSR | Section 6.7.1, page 90 -- Plan must describe an annual commitment to collaborate review and submittal to BWSR statutory and policy requirements as provided by Level 1 PRAP. Example language offered. | Replaced last sentence with suggested language. PRAP added to Appendix A – Acronyms. | Section 6.7.1, page 93 |
| 32 | BWSR | All references should be checked. The following sections are incorrectly referenced: Table 4-4, page 48, references Section 5.5; correct Section is 5.6; Table 4-5, page 49, reference Section 5.6; correct Section is 5.7; Table 4-6, page 50, references Section 5.8; correct Section is 5.9; Table 4-7, page 52, references Section 5.7.2; correct Section is 5.8.2. | Corrections to the references were made. | Tables 4-4, 4-5, 4-6, and 4-7, pages 50-54 |
| 33 | BWSR | Section 5.7.3, page 69 and Table 5-9, page 74 – Plan must describe rules and associated permit programs of watershed districts. A link to the YMRWD rules must be provided in Section 5.7.3. | YMRWD Rules and Regulations added as Appendix L. Appendix reference added to Section 5.7.3. | Section 5.7.3, page 71, 1 st ¶; Table 5-9, pages 76-77; Appendix L |
| 34 | BWSR | Describe opportunities for permanent land protection necessary to meet the resource needs and achieve the goals for the watershed. Example language offered. | Inserted suggested language in front of last sentence of 2 nd ¶, Section 5.2.1. | Section 5.2.1, page 55, 2 nd ¶ |
| 35 | BWSR | Plan should consider describing and spatially providing a sampling of specific BMPs found in each of the 4 management zones. | Comment was thoroughly considered and discussed. When the Terrain Analysis for the Yellow Medicine River watershed is completed (December 2016), these maps will be generated and incorporated into the Plan. Added language and new Figure 4-1 under Section 4.1.4. | Section 4.1.4, page 36, new Figure 4-1 |
| 36 | BWSR | Plan should consider a statement of how MSU Terrain Analysis will be part of the biennial summit and how it may be used to target field scale implementation projects. Example schematic provided. | Provided schematic (Figure 6-2) and language added to the 2 nd ¶ of Section 6.6. | Section 6.6, page 93, 2 nd ¶; new Figure 6-2, page 94 |
| 37 | BWSR | Plan should consider some narrative of how the recommended monitoring plan will be implemented in addition to the existing monitoring plan. | Ongoing monitoring will continue with a broader, more comprehensive plan to be developed and implemented as the Plan determines. The Monitoring Plan Recommendations (Appendix K) will be considered in years 1 & 2. New Action Item added to Table 4-7. | Table 4-7, page 54, 6 th Action Item |

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| 38 | BWSR | Section 6.9.4, page 98 -- The Plan should strongly consider the state's Nonpoint Priority Funding Plan (NPFP) criteria used to prioritize Clean Water Fund funding. Add NPFP reference to Section 6.9.4. | The three NPFP priorities were added to Section 6.9.4. NPFP was added to Appendix A -- Acronyms. | Section 6.9.4, page 101 |
| 39 | DNR | DNR encourages a higher priority for protection efforts. Rare, threatened, and high quality resources should continue to be considered in targeting protection. | Bullet added to Section 5.4.4, page 63: <i>"Rare, threatened, and high quality resources."</i> Similar bulleted list added to page 54, last sentence. | Section 5.4.4, page 65, 3 rd bullet; Section 5.3, page 57, 3 rd bullet |
| 40 | DNR | Priority should be given to actions providing multiple benefits. | See Comment #39. | |
| 41 | DNR | DNR recommends more emphasis on multiple benefit BMPs in the agricultural landscape than capital improvement projects. | See Comment #39. | |
| 42 | DNR | DNR recommends expanding the focus on lakes including adding priorities and action items for lakes and their watersheds. | Maps (Lakes of Biological Significance and Lakes of Phosphorus Sensitivity) will be added to Appendix C. Oak Lake meets all the water quality standards requiring protection; language added to page C-7. | Appendix C, pages C-30 and C-31, Figures C-16 & C-17; Appendix C, page C-7, last sentence |
| 43 | DNR | The Plan identified transport of bacteria to surface waters as a priority concern, however no issue or measurable goal is developed. | The HSPF model did not include bacteria as a calibrated parameter, therefore SAM development did not include bacteria transport. Section 3.1.2, added a statement that no measurable goal could be developed at this time due to the lack of bacteria data. | Section 3.1.2, last sentence, page 29 |
| 44 | DNR | DNR encourages referencing other plans and teams with shared goals, specifically, the Minnesota Prairie Conservation Plan Upper Minnesota Valley Prairie Core Area, and the Minnesota River Valley Local Technical Team. | Added <i>"and MN River Valley"</i> to first Watershed-Wide Action Item. | Table 4-2, page 47, 1 st Action Item |
| 45 | DNR | Table 5-6, page 62 – DNR finds the cost of creating dams is table seems to assign more benefits to dams than other options, although the Plan does prioritize implementing a suite of BMPs including natural flood storage options. | See Comment #22. Reference for Table 5-6 added to the table. Table renamed. | Table 5-6, page 64 |
| 46 | DNR | Figure 2-7, page 26 – Consider replacing the key with permit locations, not MDH located/unlocated well locations. | DNR provided GIS file to RESPEC. Figure will be replaced with DNR-provided information. | Figure 2-8, page 27 |

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| 47 | DNR | Table 4-4, page 48 – DNR recommends a balanced approach to debris removal. Debris that is impeding flow or may float downstream to restrict water flow is supported by DNR for removal. Other woody material often provides streambank protection and habitat. The balance is to avoid unintended consequences of making banks susceptible to erosion or degrading habitat. | Language added to the Action Item, second from the bottom: <i>“without altering the channel cross-section, increasing streambank erosion, or impacting aquatic habitat.”</i> | Table 4-4, page 50, 9 th Action Item |
| 48 | DNR | Section 3.3.4, page 32 -- Recommend removing the last sentence in this section since bank stabilizations were not given priority in the implementation plan. | Sentence was removed. | Section 3.3.4, page 33 |
| 49 | DNR | Recommend development of a Decision Support System using ACPF, PTMApp or other tool as they become available to target practices and inform design criteria. | See Comments #35 and #36. | |
| 50 | DNR | Recommend using an Undisturbed Lands GIS layer to develop protection priorities for perennial vegetative cover. | Newly developed GIS information became available about 2 months ago. DNR provided GIS file to RESPEC and provided language as a new section. | New Section 5.8.1.10, Figure 5-1, page 83 |
| 51 | DNR | Recommend the development and use of historical non-contributing watershed analysis to document and prioritize areas that could provide multiple benefits. | The non-contributing watershed analysis will be completed with the delivery of the Terrain Analysis (December 2016). This information will be incorporated into the Plan at the first biennial summit. | |
| 52 | DNR | SAM appears to underestimate the importance and benefit of perennial vegetation, wetland restorations, and storage of water on the landscape in addressing altered hydrology. DNR recommends: verifying that SAM includes an upland vegetated component for wetland restorations; verifying starting water conditions; and investigating additional models or tools to review the water storage goal. | Comment was considered. The pilot nature of SAM is recognized. Calculations for N and P reductions use U of M research and other cited sources. These same efficiency values were used in WRAPS. These concerns will be passed onto MPCA and RESPEC. | |
| 53 | DNR | CRP, RIM, buffers and other set-a-side programs touch a limited number of acres. As cover crops expand, benefits to soil health and water quality will be realized, serving the watershed well. | Comment acknowledged. | |
| 54 | Lower MN River Watershed District (LMRWD) | Prioritization and Targeting – the Plan does not sufficiently prioritize nor identify where specific types or combinations of BMPs are suitable within priority areas. | SAM was developed for this pilot project and is not currently at field-scale level yet. Figure 4-1 is a sample BMP map. Figure 6-2 schematic illustrates the approach to targeting practices after Terrain Analysis completion. | Section 4.1.4, page 36, New Figure 4-1; New Figure 6-2, page 90; Section 6.6, page 93, 2 nd ¶ |

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| 55 | LMRWD | Management Zones – LMRWD questions why topographic and soils maps were not judged sufficient to delineate management zones instead of watershed model and professional judgment. | Topography and soils information are incorporated into the watershed model along with 17 years of precipitation data and other information readily available. | |
| 56 | LMRWD | Priority subwatersheds – LMRWD questions if a subwatershed that covers two management zones is a priority for the entire subwatershed, or only that part within the zone. | The entire subwatershed is a priority whenever a subwatershed occupies more than one management zone. Pages 1, 19, and 32 contain language addressing prioritization. | |
| 57 | LMRWD | Targeting – Plan does not include targeting within priority subwatersheds. The same BMPs are distributed among the six priority subwatersheds, except that larger subwatersheds have more BMPs than the smaller subwatersheds. | See Comments #35 and #36. | |
| 58 | LMRWD | Modeling – LMRWD questions the stream buffer compliance percentages used in the HSPF and SAM models, and resulting sediment reduction goals. | Comment acknowledged. Model development is outside the scope of this pilot project. MPCA will receive a copy of this Response to Comments spreadsheet. | |
| 59 | LMRWD | Modeling – LMRWD questions the WRAPS report Appendix 4.11 data with HSPF data pertaining to the partitioning of sediment load into cropland surface runoff and near-channel erosion. | See Comment #58. | |
| 60 | LMRWD | Modeling – Incorrect assumptions to estimate “detached sediment storage” lead to exaggerated estimates of cropland erosion. Evidence suggests that HSPF overestimates surface sediment loading. Near channel erosion is underestimated. LMRWD urges YM1W1P to engage MPCA in addressing the modeling-related questions raised. | See Comment #58. | |
| 61 | Ed Laleman | Streambank stabilizations should be higher priority. Tiling is out of control and largely unregulated by a watershed district that fails to turn down anyone who requests a permit. DNR is unresponsive and unwilling to assist him with his streambank destruction problem. | Streambank stabilizations are not a priority BMP at this time; see Comment #48. Table 5-7 addresses future regulatory control considerations including permitting and mitigation. Better and prompt response by the DNR to concerns will be encouraged. | |